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Time perception: A study of young Brazilian workers

Percepções temporais: Um estudo com jovens trabalhadores brasileiros

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Abstract

Given the importance of time as a category of analysis in organisational research, this study's objective was to analyse the time perceptions of young Brazilian workers. The study was guided by the five time dimensions proposed by Bluedorn and Jaussi (2007): polychronicity, speed, punctuality, temporal depth and entrainment. The field work consisted of a descriptive case study, paired with a quantitative analysis of data collected with a structured, closed and self-administered questionnaire based on Paiva, Dutra, Santos and Barros's (2013) Time Perception Scale. The data were analysed using univariate and bivariate statistics. Monochronic, slow and punctual behaviours, with past temporal depth, predominate among young workers. The results also show that respondents are highly temporally entrained from various perspectives, particularly entrainment through synchrony, followed by entrainment through leadership and conduction. Based on these findings, the contributions and limitations of the study are presented, and new possibilities for future research are suggested.

Keywords: Perceptions of time, time in organisations, young workers.

Resumo

Diante da importância do tempo enquanto categoria de análise no campo das organizações, o objetivo do estudo foi analisar as percepções temporais de jovens trabalhadores brasileiros. O estudo pautou-se nas cinco dimensões temporais apresentadas por Bluedorn e Jaussi (2007), quais sejam: policronicidade, velocidade, pontualidade, profundidade temporal e arrastamento. O trabalho de campo consistiu em um estudo de caso, descritivo, com abordagem quantitativa, sendo a coleta de dados realizada por meio de questionário estruturado, fechado e autoaplicável, a Escala de Percepção Temporal, EVT, de Paiva, Dutra, Santos e Barros (2013). Os dados foram tratados utilizando-se estatística uni e bivariada. Predomina entre os jovens trabalhadores um comportamento monocrômico, lento, pontual, com profundidade temporal passada. Os pesquisados consideram-se altamente arrastados temporalmente em diversas perspectivas, destacando-se o arrastamento por sincronia, seguido pelo arrastamento por liderança e por condução. A partir dos resultados, contribuições e limitações do estudo apresentado, sugerem-se novas possibilidades para pesquisas futuras.

Palavras-chave: Percepções temporais, tempo em organizações, jovens trabalhadores.

1. Introduction

The issue of time has been studied in several fields of research, with physics and philosophy being the most profitable (Elias, 1998; Klein, 1995). The ideas of a time that is gone, that does not go backwards and that consumes itself and is consumed are some of the concepts embedded in this research. The study of time necessarily 'is about a human reality inserted in nature, and it is not about a "nature" and a human reality separately' (Elias, 1998, p. 79).

However, researchers understand that time is a social construction and, therefore, that its perception suffers variations in certain moments and places, given the specific environments in which human beings' experiences take place. Nonetheless, at the same time that time structures such experiences, it also reshapes itself, restructuring through continuous processes (Bauman, 2007; Hall, 1983; Harvey, 2009) that involve subjective and objective dimensions (Bauman, 2007; Harvey, 2009; Zherebin, Vershinskaia & Makhrova, 2015). To reflect about time is to reflect about human beings in all their possibilities and limitations (Elias, 1998; Klein, 1995), which need to include organisations (Mello & Tonelli, 2002; Nogueira, 2003; Paiva & Mageste, 2008; Vergara & Vieira, 2003) because 'time is not reduced to an idea that arises from nothing, as it were, in individuals' minds' (Elias, 1998, p. 15). Time is seen as an institution that varies in accordance with each society's stage of development.

This perspective includes complex ways to be located in time, which require individuals to engage in different kinds of efforts in order to survive. This is the case, for example, of time acceleration (Virilio, 1996; Zherebin et al., 2015), compression (Harvey, 2009), flexibility (Butler, 1995) and fragmentation (Gurvitch, 1964) in experiences.

In Brazil, several studies in the field of administration have sought to understand how workers think and act in terms of time, considering different time perspectives. This research agenda, thus, has expanded into many areas, relating the time experienced by subjects with organisational change processes (Nogueira, 2003; Vasconcelos, Zaccarelli, Menegon, Mascarenhas & Benavent, 2005) and with organisational controls (Emmendoerfer, 2008). In addition, researchers have related time perceptions with space (Frezza, Grisci & Kessler, 2009; Silva, 2006; Puma & Wetzel, 2007; Vergara & Vieira, 2003), with other contemporary dilemmas (Mello & Tonelli, 2002; Tonon, Camillis, Marques & Grisci, 2013), with people management policies (Irigaray & Vergara, 2011) and with the type of work performed, especially for time compression and

acceleration caused mainly by managers (Dantas & Tonelli, 2007; Paiva & Mageste, 2008; Paiva, Pinto, Dutra & Roquete, 2011; Scalco & Grisci, 2009; Tanure, Carvalho-Neto & Andrade, 2007). Finally, time experiences have been studied as a process of multiple dimensions (Lombardi & Hanashiro, 2010; Paiva et al., 2011).

Besides the possibilities that this issue offers in terms of thematic connections, previous studies also have used primarily qualitative approaches. As a result, Mello and Tonelli (2002) recommended that researchers in this field perform more quantitative studies:

(Studies need to be conducted) either with critical approaches (or) with pragmatic approaches. Only through a broader vision of the concept of time and its impact on social reality can we question the forms of imposed control and domination used today and propose other possibilities to cause less damage to individuals. (p. 13)

This recommendation was followed in the present study, as was the suggestion that 'special populations' exist (Barling, Kelloway & Frone, 2005; Kelloway, Barling & Hurrell, 2006) that require more extensive empirical research in order to understand them more fully, as is the case of young workers (Paiva, 2013). These last are seen as outside the realm of paradigmatic case studies due to these workers' idiosyncrasies (Barling et al., 2005; Fouad, 2006; Kelloway et al., 2006; Loughlin & Lang, 2005; Perry & Parlamis, 2006; Pochmann, 1998; Schwartz, 2005; Tucker & Loughlin, 2006; Zherebin et al., 2015) and the work contexts in which young workers usually can be found (Amorim, 2010; Antunes, 2008; Constanzi, 2009; Loughlin & Lang, 2005; Nogueira, 2009; Pochmann, 1998; Rosenfield, 2009; Tucker & Loughlin, 2006; Venco, 2009).

The term 'young workers' usually refers to workers aged 15–24 years (Loughlin & Lang, 2005; Tucker & Loughlin, 2006). According to the literature, young people are more represented in certain types of jobs. In the United States, this occurs in the service and trade sectors, which suggests a more frequent participation in jobs involving direct interaction with people (Loughlin & Lang, 2005; Tucker & Loughlin, 2006). In Brazil, even with a high school education or professional qualifications, young workers have entered into the job market through occupations such as basic cleaning, waitering and security services (Pochmann, 1998), while others come in through the food services and trade sectors, such as fast food or telemarketing organisations (Amorim, 2010). Tucker and Loughlin (2006) pointed out that few studies have examined youths' work experiences in the field of administration and that young workers are usually victims of aggression and violence in the workplace. Finally, differences between older and younger people in their patterns of focusing at work on emotional goals and on knowledge-related goals, respectively, need to be better investigated, as suggested by Siu, Lam, Le and Przepiorka (2014). These facts, coupled with the acceleration and compression of time in the workplace, may cause youths to experience a drop in their quality of life – overall and at work – a pattern that has already been observed in the general population (Zherebin et al., 2015). These previous findings led to the choice of this population as the target of the research presented here.

In short, the goal of this research was to analyse the time perceptions of young Brazilian workers. The following sections discuss the approach to time in organisations proposed by Bluedorn and Jaussi (2007) and present the research methodology. After the presentation and analysis of data, final considerations are outlined.

2. Bluedorn and Jaussi's (2007) five dimensions of time

The first time dimension presented by Bluedorn and Jaussi (2007) is *polychronicity*, which they considered the most important. It involves a consistent choice – conscious or unconscious – about how to become involved in tasks and events. Notably, polychronicity is a continuum of behaviours, at one extreme of which are subjects who strongly prefer to be engaged in many tasks or events at the same time, also called 'polychronic' subjects. At the other extreme are 'monochronic' subjects or those who engage in one activity at a time and who are reluctant to move to a second one until the first is completed. The meaning of 'simultaneous' or 'at the same time' implies not waiting for the completion of an activity to start another one, which does not take into account productivity (i.e. the quantity or quality of results) (Bluedorn & Jaussi, 2007).

The second dimension presented by Bluedorn and Jaussi (2007) is *speed*, that is, the 'frequency (number) of activities in a unit of social time' (Bluedorn, 2002, p. 104). From this perspective, some individuals prefer to perform their activities faster, while others perform them slowly, one more time applying the notion of continuous actions without a direct impact on productivity.

Punctuality refers to being at the appropriate or expected time – to be punctual – which varies due to individual and contextual factors, that is, from person to person, from culture to culture (Bluedorn, 2002) and even within cultures (Bluedorn & Jaussi, 2007). Being on time appears to be an objective construction, measurable by the clock, but punctuality also manifests itself as a strong element of social constructs. Significantly, punctuality is a dimension linked directly to chronological, measurable time. However, people can have other less objective ways of experiencing time, transcending 'clock time' and promoting other temporal perceptions (Allman, Teki, Griffiths & Meck, 2014; Anderson, Rueda & Schmitter-Edgecombe, 2014; Liu et al., 2015). For example, when individuals are doing some activity that appeals to them or elicits their positive emotions (Vasile, 2015), they often 'feel' time passing quickly, meaning their organic time differs from chronological time.

The fourth dimension described by Bluedorn and Jaussi (2007) is *temporal depth*. Initially, this was defined as the time gap between past and future that a subject considers when contemplating events that have happened, could have happened or may happen (Bluedorn, 2002). This dimension necessitates a complex understanding in individuals' everyday practices. In this context, Zimbardo and Boyd's (1999) research was a precursor, pointing out significant differences in time

perception of people of different ages, genders and religious orientations: woman, people over 50 years old and Protestants and Catholics are more worried about the future than are men, people younger than 20 years old and Buddhists and Jews. In organisational research, individuals who experience their time as ever more compressed and who are subject to a growing appreciation of immediate and instantaneous realities (Frezza et al., 2009) tend to have difficulty rationalising their preferences or patterns of behaviour in terms of temporal depth.

The last dimension discussed by Bluedorn and Jaussi (2007) is *entrainment*, which can be defined as the adjustment of an activity's step, rhythm or cycle as a function of another or other activities. Thus, the political – and coercive – nature of this time dimension can be observed (Elias, 1998; Harvey, 2009), as entrainment is not performed disconnected from social actions (Harvey, 2009) but instead is implemented with 'a coordination and integration function' (Elias, 1998, p. 45). The authors of the present paper have defined three sub-forms of entrainment, which are described in Table 1.

Table 1 - Forms of entrainment

Forms of entrainment	Description
Synchrony	'This implies corresponding phases of two rhythms that occur at the same time, as in what happens with musicians and their instruments in an orchestra.'
Leadership	'This refers to phases of other rhythms that show entrainment, happening before the corresponding phases of the most powerful or strongest rhythm, such as arriving earlier for a meeting with the boss.'
Conduction	This refers to 'the phases of other rhythms "that show entrainment"', following the corresponding phases of the rhythm 'responsible for the entrainment' that are more powerful or stronger. For example, this happens after a bell rings during trading on the stock exchange, in which analysts who buy and sell papers (e.g. actions) follow the permission given or not given by the trading managers for papers' commercialisation.

Source: Paiva et al. (2011, p. 646).

This dimension has direct implications for organisations, as managers and leaders have formal or informal responsibilities to promote social cohesion by means of subordinates' alignment regarding their time preferences and even in relation to organisations' time demands (Paiva & Mageste, 2008; Paiva et al., 2011). Finally, Bluedorn and Jaussi (2007) called attention to necessary precautions with applying these concepts in time studies, for example, that researchers should not disregard the complexity of reality, taking care to analyse the junctions between all dimensions. Thus, in this study, all five dimensions have been addressed to the chosen group, the young workers.

3. Methodology

The present research is characterised as a quantitative and descriptive study. The young workers studied were students in free professional training courses taught at Espro or the Social Education for Professional Qualification association, in its Belo Horizonte, Minas Gerais, Brazil location. Notably, this association seeks to prepare young people between 14 and 24 years old for the job market. The trainees come from the public school system and low-income backgrounds, including disabled and special needs individuals, so the association is necessarily active within several areas in Brazil.

The data collection was conducted using a questionnaire composed of three parts:

1) Participants' demographic and job-related data

2) The Time Perception Scale, based on Bluedorn and Jaussi's (2007) dimensions and validated by Paiva, Dutra, Santos and Barros (2013), in which the previously defined five dimensions are measured on a six-point Likert scale that varies from 1 = 'Strongly disagree' to 6 = 'Strongly agree'

3) Space for questions, comments and suggestions

For the questionnaire distribution, the minimum sample was calculated as 290 respondents out of a population of 1,175 young workers and students in Espro at the time of data collection, with a 95% confidence interval and 5% margin of error. The questionnaire was distributed inside the Espro building, using a random, probabilistic sampling method (Cooper & Schindler, 2008). The final sample consisted of 505 valid questionnaires.

Data were entered into an electronic spread sheet (i.e. Excel 97/2003). After this, they were tabulated and analysed using descriptive statistics that were both univariate (i.e. measures of position and dispersion) and bivariate (i.e. Spearman's correlation test, since it is a nonparametric correlation measure) because the data violated the normality condition (Collis & Hussey, 2005), which is a normal occurrence in research using a Likert scale. The analyses were done with the aid of statistical software (i.e. Statistical Package for Social Sciences, SPSS version 15; Minitab 14).

4. Data presentation and analysis

The participants' personal data includes gender, age, marital status, education, skin colour, father and mothers' education and family income. The data are shown in Table 2.

Table 2 - Respondents' personal data

Personal data	Categories	% of respondents
Gender	Male	39.1
	Female	60.9
Age	Up to 16 years old	31.7
	From 17 to 18 years old	41.7
	From 19 to 20 years old	22.1
	More than 21 years old	4.6
Marital status	Single	97.2
	Married/civil union	0.8
	Others	2.0
Education	Primary education (incomplete)	1.6
	Primary education (complete)	4.1
	High school (incomplete)	48.9
	High school (complete)	35.6
	Undergraduate (incomplete)	9.6
	Undergraduate (complete)	0.2

Personal data	Categories	% of respondents
Skin colour	White	22.1
	Black	10.7
	Olive-brown	27.1
	Mixed ethnicity	36.6
	Yellow-brown	3.2
	Others	0.2
Father's education	Primary education (incomplete)	37.7
	Primary education (complete)	10.7
	High school (incomplete)	14.9
	High school (complete)	28.8
	Undergraduate (incomplete)	3.2
	Undergraduate (complete)	3.4
	Postgraduate	1.3
Mother's education	Primary education (incomplete)	31.5
	Primary education (complete)	14.4
	High school (incomplete)	12.6
	High school (complete)	29.8
	Undergraduate (incomplete)	3.5
	Undergraduate (complete)	6.8
	Postgraduate	1.4
Family income	Up to 1 times the minimum wage	9.9
	From 1 to 2 times the minimum wage	34.3
	From 2 to 3 times the minimum wage	28.4
	From 3 to 4 times the minimum wage	11.8
	From 4 to 5 times the minimum wage	6.7
	From 5 to 7 times the minimum wage	5.3
	From 7 to 10 times the minimum wage	2.4
	From 10 to 20 times the minimum wage	0.8
	More than 20 times the minimum wage	0.4

Source: Authors.

Regarding job-related data, the questions were about participants' total time working, length of time working for their current company and length of time working in their current position, as well as if they received a salary or some kind of financial support. The data are shown in Table 3.

Table 3 - Respondents' job-related data

Job-related data	Categories	% of respondents
Total time working	Less than 6 months	31.6
	From 6 months to 1 year	35.0
	From 1.1 to 2 years	25.8
	From 2.1 to 3 years	3.4
	From 3.1 to 5 years	3.4
	More than 5.1 years	0.8
Length of time working for company	Less than 6 months	34.9
	From 6 months to 1 year	38.2
	From 1.1 to 2 years	26.2
	From 2.1 to 3 years	0.2
	From 3.1 to 5 years	0.0
	More than 5.1 years	0.0
Length of time working in position	Less than 6 months	36.7
	From 6 months to 1 year	37.9
	From 1.1 to 2 years	25.2
	From 2.1 to 3 years	0.2
	From 3.1 to 5 years	0.0
	More than 5.1 years	0.0
Salary/financial support	Yes	83.6
	No	16.4

Source: Authors.

Next, these young workers' perceptions were analysed regarding Bluedorn and Jaussi's (2007) five categories of time, as determined by the Temporal Perception Scale (Paiva et al., 2013). Notably, any scores in each dimension equal to or higher than 3.5 indicate a polychronic, fast and punctual behaviour, with temporal depth leading into the future and entrainment into all possibilities (i.e. synchronised, led and conducted). Scores in each dimension below 3.5 indicate a monochronic, slow and non-punctual behaviour, with temporal depth leading into the past and without any or with lower entrainment (i.e. non-synchronised, non-led and non-conducted behaviour). The position and dispersion measures are given in Table 4.

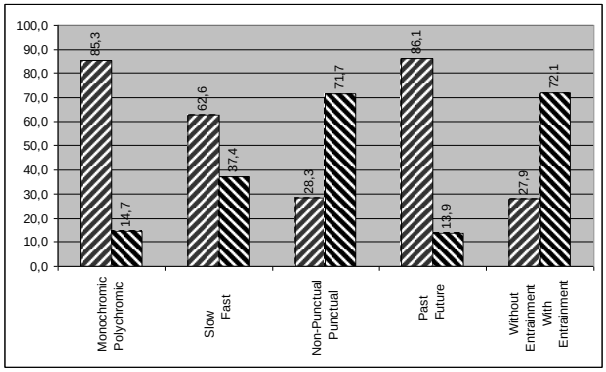
Table 4 - Measures of position and dispersion from respondents' time perception dimensions

Measures / Dimensions	Mean	Time perception	p25	Median	p75	Standard deviation
Polychronicity	2.96	Monochronic	2.60	2.90	3.20	0.500
Speed	3.40	Slow	3.00	3.30	3.60	0.592
Punctuality	3.92	Punctual	3.38	3.75	4.50	0.794
Temporal depth	2.90	Into the past	2.63	2.88	3.13	0.502
Entrainment	3.91	With entrainment	3.42	3.83	4.50	0.719
Synchrony	4.02	Synchronised	3.50	4.00	4.75	0.878
Leadership	3.97	Led	3.25	3.75	4.50	0.904
Conduction	3.73	Conducted	3.25	3.75	4.25	0.768

Source: Authors.

The analyses of the dimensions also considered the frequency distribution for each dimension, that is, the percentage of respondents in each dimension. Figure 1 shows the distribution among the dimensions analysed.

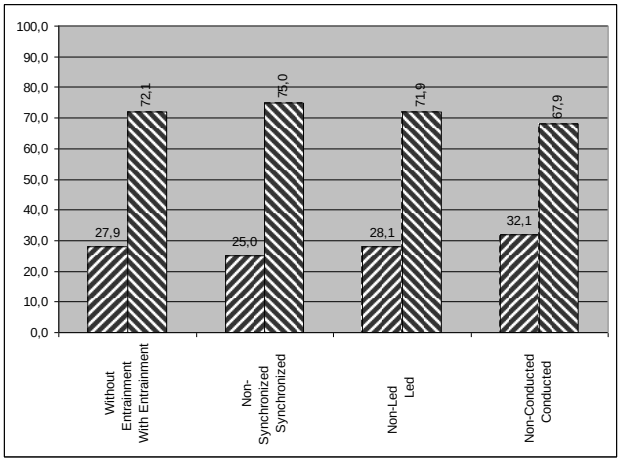
Figure 1 - Percentage of respondents by level of analysis of time perception dimensions



Source: Authors.

Figure 2 shows the respondents' distribution for each level of entrainment studied.

Figure 2 - Percentage of respondents by level of analysis of temporal entrainment variables



Source: Authors.

These results contradict recent studies that found a more polychronic profile among young people (e.g. Trindade, 2013). This difference can be explained by the socioeconomic profile of the young people involved in the present research: low-income and entering the job market in unchallenging positions. This inference is supported by Vasile (2015, p. 699), who wrote, 'Time perception is strongly related to the feeling of social exclusion.'

In addition, the respondents access to various technologies and the chance to engage in a variety of classes during childhood and youth are factors that contribute to the formation of predominantly polychronic behaviour among young people (Trindade, 2013). This fact, however, may not be in accordance with the reality of the young people surveyed in the present study, despite the professional qualifications they have acquired at Espro.

Relative to speed, the young people surveyed show a preference for a pattern of behaviour contrary to what is expected of them in the job market. That is, individuals must remain active in a society featuring rhythms that impose speed training (Leccardi, 2005).

Entrainment by synchrony can be explained by the participants' social conditions: they are new professionals involved in learning processes, who are attempting to follow those with more work experience. As for entrainment by leadership, the data results are justified by young people's interest in standing out, as they are entering the job market and behaviours that make them stand out are opportunities to ensure these young people attain desired positions and create new opportunities. Finally, entrainment by conduction ratifies the power relations to which these young people are subjected in their daily work.

Correlation tests among the time dimensions analysed showed only two significant results ($p < 0.05$). The results can be seen in Table 5.

Table 5 - Correlation test results for polychronicity and other time dimensions

Time dimensions / Polychronicity	Speed	Punctuality	Temporal depth	Entrainment
Correlation coefficient	**0.127**	0.016	**0.312**	0.038
Sig. (bilateral)	**0.004**	0.724	**0.000**	0.392

Source: Authors.

Thus, young people showing monochronic behaviours tend to be slower and see temporal depth leading into the past, which confirms Bluedorn's (2002) findings. However, no correlation was found between polychronicity and punctuality, as Lombardi and Hanashiro (2010) also found. In correlation tests between demographic and job-related variables and the time dimensions, there were 10 significant results, which are presented in Table 6.

Table 6 - Correlation test results for time dimensions and demographic and job-related variables

Demographic and job-related variables / Time dimensions	Gender	Age	Education	Length of time working for company	Length of time working in position
Polychronicity					
Correlation coefficient	**0.127**	0.075	**0.099**	-0.019	-0.022
Sig. (bilateral)	**0.004**	0.101	**0.029**	0.680	0.625
Speed					
Correlation coefficient	**-0.092**	**–0.118**	-0.48	-0.065	**-0.089**
Sig. (bilateral)	**0.040**	**0.010**	0.284	0.148	**0.049**
Punctuality					

Time dimensions \ Demographic and job-related variables	Gender	Age	Education	Length of time working for company	Length of time working in position
Correlation coefficient	-0.045	–0.066	-0.010	**-0.089**	**-0.105**
Sig. (bilateral)	0.317	0.150	0.831	**0.048**	**0.020**
Temporal depth					
Correlation coefficient	**0.178**	0.029	0.073	-0.025	0.009
Sig. (bilateral)	**0.000**	0.523	0.104	0.583	0.846
Entrainment					
Correlation coefficient	-0.073	–0.073	0.012	**-0.092**	**-0.113**
Sig. (bilateral)	0.100	0.111	0.787	**0.041**	**0.012**

Source: Authors.

The variable gender had three significant results for polychronicity, speed and temporal depth dimensions. This indicates that women tend to be more polychronic and future-oriented than men are (i.e. a positive rho coefficient), but also slower (i.e. a negative rho coefficient).

Correlating age and the speed dimension resulted in significant findings, with a negative rho coefficient, indicating that younger people (up to 16 years old) tend to be faster than are older people (more than 21 years old) in the sample. Correlating education and polychronicity also resulted in significant findings, with a positive rho coefficient, which means that young people with a higher level of education tend to be more polychronic. This result corroborates Kaufman-Scarborough and Lindquist's (1999) findings.

Regarding the length of time working for a company, this variable presented significant results as this is correlated to the punctuality and entrainment dimensions, with a negative rho coefficient, indicating that the longer the time working for the same company, the more these young people tend to be unpunctual and subject to entrainment.

Finally, tests between length of time working in a particular position and the speed, punctuality and entrainment dimensions produced significant results, with negative rho coefficients. This indicates that the longer the time spent in slower occupations, the more unpunctual and without entrainment tend to be the participants.

After performing correlation tests of demographic and job-related variables with the subcategories of entrainment, all significant results were separated and analysed. These results are given in Table 7.

Table 7 - Correlation test results for subcategories of entrainment dimension and job-related variables

Time dimensions \ Demographic and job-related variables	Length of time working for company	Length of time working in same position
Synchrony	**-0.118**	**-0.127**
Correlation coefficient		
Sig. (bilateral)	**0.009**	**0.005**
Conduction	**-0.089**	**-0.097**
Correlation coefficient		
Sig. (bilateral)	**0.048**	**0.031**

Source: Authors.

The test results for the subcategories of conduction and synchrony are a negative rho coefficient that indicates there is an inverse relationship with the variables involving the time that young workers remain in an organisation and in their current position. This means that the longer these workers stay at an organisation and in the same position, the less time they are entrained by the influence of others. This finding may indicate that, as youths acquire work experience, the less they are subject to time alignment with third parties. This can lead to two independent analytical possibilities: young workers can become more autonomous and/or they ignore the influence of other people at their own pace, according to their priorities and the way they do their work. Although the result for entrainment by leadership is not significant, it is understood that the other two subcategories are strong enough to make the results for entrainment as a whole significantly different, as can be seen in Table 6 above. Given these data, the following conclusions were determined.

5. Conclusions

In terms of time perceptions, the majority of participants in this research engage in monochronic behaviour, a finding that contradicts previous research that found more polychronic behaviour among young people. Regarding speed, the participants in the present study showed a preference for slower behaviours. As for punctuality, the majority of respondents adopt punctual behaviours. Temporal depth is focused on the past, implying a disruption of these young people's progressive and hopeful vision of the future, as discussed in the literature. Finally, most respondents claim to have entrainment, highlighting the power relations to which young people are subject and showing that their time, in all

three modes analysed, is at the mercy of other actors considered more powerful in their organisation.

In the bivariate analysis conducted, the sample revealed a positive correlation between the dimensions of polychronicity, speed and time depth. A significant correlation also was found between time dimensions and demographic and job-related variables such as gender, age, education and length of time working for a company and in the same position.

These data stimulate reflections about improvements needed in the management of younger people in organisations, especially the reduction of conflicts. Clearly, a better understanding of these workers' time perceptions and behaviours minimises the risk of misinterpreting these young people's behaviour. However, the results cannot be generalised beyond the specific participants (1) because this was a case study, (2) it used a probabilistic sampling method and (3) it included young people in a single Brazilian state/city.

Despite these limitations, the results indicate a variety of topics within which research on workers and, in particular, young individuals' time perceptions can continue and expand. This research could be extended to include young workers from other regions and other social strata in order to deepen the understanding of these issues and to identify broader behavioural patterns. Future research also could use bivariate techniques to confirm, or not, the correlations found in the present study that do not support the literature. Studies using methodological triangulation also appear to be useful when seeking to gain a broader and deeper understanding of the phenomena under study.

Reflecting the idea that 'the sociological problem of "time" falls within the natural sciences and social sciences' (Elias, 1998, p. 79), this study highlights the importance of this issue to understanding the nature of contemporary workers. The findings also contribute to a better grasp of the particularities of young workers' specific conditions.

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